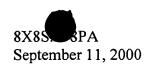**What is claimed is:**

1.   A telephony communications arrangement, comprising:

a unique internet-based private branch exchange including a programmable processor circuit programmed to control a server at the internet-based private branch exchange, the internet-based private branch exchange adapted to communicate to a remote location over a first communications path using packet-based communications; and
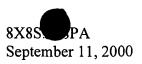
a plurality of packet-communicating endpoint devices, each of which is adapted to communicate with the internet-based private branch exchange over a second communications path which is directly communicatively coupled to the first communications path, wherein the second communications path is also communicatively coupled to a plurality of other packet-based servers, and each packet-communicating endpoint device is configured and arranged to automatically locate (e.g., by broadcasting its identity and waiting for a communication assignment) and establish communication with the unique internet-based private branch exchange from the plurality of other packet-based servers for establishing packet-based communications between the packet-communicating endpoint device and the internet-based private branch exchange.

2.   The telephony communications arrangement according to claim 1, wherein each of the packet-communicating endpoint devices is further adapted to store both an IP address and a Media Access Controller address unique to the endpoint device, and to communicate the unique Media Access Controller address with the internet-based private branch exchange.
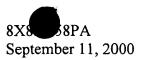
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3.   The telephony communications arrangement according to claim 2, wherein each of the packet-communicating endpoint devices is one of: a telephony device, IP phone, IP appliance such as a PDA (personal data assistance and/or organizer), and a media hub.

4.   The telephony communications arrangement according to claim 1, wherein each of the packet-communicating endpoint devices is further adapted to store a unique code that identifies the internet-based private branch exchange relative to the plurality of other packet-based servers.

5.   The telephony communications arrangement according to claim 1, wherein each of the packet-communicating endpoint devices is further adapted to execute a program that causes the packet-communicating endpoint device to search for one of the servers that manifests an acceptable routing path to establish packet-based communication.

6.   The telephony communications arrangement according to claim 5, wherein the acceptable routing path is defined in terms of an optimally minimum number of routing connections identified over a predetermined period of time.

7.   The telephony communications arrangement according to claim 6, wherein the acceptable routing path is defined as a function of a capture acknowledgement from one of the servers that has been preassigned to communicate with a code uniquely associated with the endpoint device.

8.   The telephony communications arrangement according to claim 5, wherein the acceptable routing path is defined in terms of geographic location of one of the servers.

9.   The telephony communications arrangement according to claim 1, wherein each of the packet-communicating endpoint devices is further adapted to execute a program that causes the packet-communicating endpoint device to search for one of the servers using a selected one of a plurality of search processes.

10.   The telephony communications arrangement according to claim 9, wherein the plurality of search processes include at least two of the following: see above claims 4-9; and wherein the selection of the one of the search processes is a function one or more of the following: preassigned priority list, cost, time of day, location of target communication destination, a category of service providers, and a type of media (video, audio, etc.).

11.   An endpoint telephony device for use in an internet-based private branch exchange communications system, the system including a programmable processor circuit programmed to control a server at the internet-based private branch exchange, the internet-based private branch exchange adapted to communicate with a plurality of packet-communicating endpoint devices at a remote location over first and second intercoupled communications paths using packet-based communications, the telephony communications arrangement comprising:

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at least one of the plurality of packet-communicating endpoint devices being adapted to directly couple to the second communications path for communicating with the internet-based private branch exchange, the second communications path being communicatively coupled to a plurality of other ones of the plurality of packet-communicating endpoint devices and the first communications path being communicatively coupled to other packet-based servers, said at least one of the plurality of packet-communicating endpoint devices being configured and arranged to automatically locate (e.g., by broadcasting its identity and waiting for a communication assignment) and establish communication with the internet-based private branch exchange from the plurality of other packet-based servers for establishing packet-based communications between the packet-communicating endpoint device and the internet-based private branch exchange.

12. The endpoint telephony device according to claim 11, wherein said at least one of the plurality of packet-communicating endpoint devices is further adapted to store a unique Media Access Controller address and to communicate the unique Media Access Controller address with the internet-based private branch exchange.

13. The endpoint telephony device according to claim 12, wherein said at least one of the plurality of packet-communicating endpoint devices is further adapted to store a unique code that identifies the internet-based private branch exchange relative to the plurality of other packet-based servers.

14.   The telephony communications arrangement according to claim 11, wherein each

of the packet-communicating endpoint devices is further adapted to execute a program

that causes the packet-communicating endpoint device to search for one of the servers

that manifests an acceptable routing path to establish packet-based communication.

15.   The telephony communications arrangement according to claim 14, wherein the

acceptable routing path is defined in terms of an optimally minimum number of routing

connections identified over a predetermined period of time.

16.   The telephony communications arrangement according to claim 11, wherein said

at least one of the plurality of packet-communicating endpoint devices is further

configured and arranged to automatically search for and distinguish the internet-based

private branch exchange in response to a set of programmed rules.

17.   A telephony communications arrangement, comprising:

        an internet-based private branch exchange including programmable means for

controlling a server at the internet-based private branch exchange, the internet-based

private branch exchange adapted to communicate to a remote location over a first

communications path using packet-based communications; and

        a plurality of packet-communicating endpoint devices, each of which includes

means for communicating with the internet-based private branch exchange over a second

communications path which is directly communicatively coupled to the first

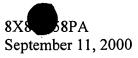communications path, wherein the second communications path is also communicatively

coupled to a plurality of other packet-based servers, and each packet-communicating endpoint device further including means for automatically locating (e.g., by broadcasting its identity and waiting for a communication assignment) and establishing communication with the internet-based private branch exchange from the plurality of other packet-based servers for establishing packet-based communications between the packet-communicating endpoint device and the internet-based private branch exchange.

18.   A method for telephony communications in an internet-based private branch exchange communications system, the system including a programmable processor circuit programmed to control a server at the internet-based private branch exchange, the internet-based private branch exchange adapted to communicate with a plurality of packet-communicating endpoint devices at a remote location over first and second intercoupled communications paths using packet-based communications, the telephony communications method, comprising:

causing each of the plurality of packet-communicating endpoint devices to communicate with the internet-based private branch exchange over the second communications path and to automatically locate (e.g., by broadcasting its identity and waiting for a communication assignment) and establish communication with the internet-based private branch exchange from the plurality of other packet-based servers; and
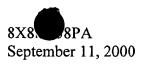
in response to distinguishing the internet-based private branch exchange from the plurality of other packet-based servers, establishing packet-based communications between the packet-communicating endpoint device and the internet-based private branch exchange.

20.   The method according to claim 19, further including causing said at least one of the plurality of packet-communicating endpoint devices to store a unique code that identifies the internet-based private branch exchange relative to the plurality of other packet-based servers.

21.   The telephony communications arrangement according to claim 19, further including causing said at least one of the plurality of packet-communicating endpoint devices to search for one of the servers that manifests an acceptable routing path to establish packet-based communication.

22.   The telephony communications arrangement according to claim 21, wherein the acceptable routing path is defined in terms of an optimally minimum number of routing connections identified over a predetermined period of time.

23.   A telephony communications arrangement, comprising:

a unique internet-based private branch exchange including a programmable processor circuit programmed to control a server at the internet-based private branch exchange, the internet-based private branch exchange adapted to communicate to a remote location; and

a plurality of packet-communicating endpoint devices, each of which is adapted to communicate with the internet-based private branch exchange which is communicatively coupled to the first communications path, wherein the second communications path is

also communicatively coupled to a plurality of other packet-based servers, and each

packet-communicating endpoint device is configured and arranged to automatically

locate and establish communication with the unique internet-based private branch

exchange from the plurality of other packet-based servers for establishing packet-based

communications between the packet-communicating endpoint device and the internet-

based private branch exchange, wherein the automatic location includes broadcasting its

identity and waiting for a communication assignment from at least one of: a DNS and the

iPBX.

24.   The telephony communications arrangement of claim 23, wherein each packet-

communicating endpoint device is configured and arranged to establish the

communication with the unique internet-based private branch exchange only after

security is validated with the unique internet-based private branch exchange.

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